

Date: Tuesday, 7/1/2008 2:34:11 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : TUBE ASSEMBLY
 Job Number : 40189
 Estimate Number : 10426
 P.O. Number :
 This Issue : 7/1/2008 S.O. No. :
 Prsht Rev. : NC Part Number : D3304044
 First Issue : 1/1 Type : MACHINED PARTS Drawing Number : D3304 REV. B
 Previous Run : 29196 Drawing Revision : B
 Written By :
 Checked & Approved By : *[Signature]* 08.07.01
 Comment : Est. ID 04.11.26 Revised Steps 7 KJ/JLM

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description:

1.0 M304TR0875W065 SS TUBING



Comment: Qty.: 1.9469 f(s)/Unit Total: 7.7876 f(s)

Material: AISI 304/316 SS tubing 0.875" x 0.065" wall

(M304TR0.875W.065)

Batch:

M16258 x1

M103090 x1

J.F. 08/07/17

(2)

2.0 HARDINGE *Manual Lathe* HARDINGE CNC LATHE SMALL



Comment: HARDINGE CNC LATHE SMALL

1- Cut blank: 22.00" as per Dwg D3304

2- Turn as per Folio FA458 and Dwg D3304

3- Deburr

J.F. 08/07/17

(2)

3.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

J.F. 08/07/17

(2)

4.0 QC8 SECOND CHECK



Comment: SECOND CHECK

S.F. 08/07/17

(2)

5.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1- Drill as per Dwg D3304 using drill Jig D3304-T1

2- Form as per Dwg D3304

3- Cut tube to length as per Dwg D3304

4-Check with DT8657 JIG

4- Deburr

FF

08-07-25

(2)

FF

08-07-28

(2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 7/1/2008 2:34:11 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 40189

Part Number: D3304044

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

508/07/28 (X2)

7.0

D33048

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bracket

Pick:

Qty Part Number Description Batch
1 D3304-8 Bracket

325157 ✓

PLC 08-07-31

(X2)

8.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld bracket as per Dwg D3304 and QSI 004

PLC 08-07-31

(X2)

9.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

QC5 508/08/01 (X2)

QC9 PD 08-08-01 (2)

10.0

POWDER COATING

POWDER COATING



M106442



(2X)

Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

1:50
320°F
2:20

m-d 08/08/05

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

08-08-05 (X2)

12.0

BLBS0016

PIP PIN



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

PIP PIN

Pick:

Qty Part Number Description Batch
1 BLBS-0016 Pip Pin

103178

C-8/8/6 (2)

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 7/1/2008 2:34:11 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 40189

Part Number: D3304044

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

CBL460

Loop Sleeve



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Loop Sleeve

Pick:

Qty	Part Number	Description	Batch
2	CBL-460	Loop Sleeve	M107234

Handwritten initials

14.0

CBL1240

Cable



Comment: Qty.: 1.0416 f(s)/Unit Total : 4.1664 f(s)

Cable

Pick:

Qty	Part Number	Description	Batch
12.5"	CBL-1240	Cable	M107234

Handwritten signature and circled 5

15.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble lanyard and pip pin as per Dwg D3304

Identify as D3304-044

Handwritten: SAI 08/08/07

Circled 5

16.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Handwritten: S 08/08/07

Circled 12

17.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify with P/N and B/N as per Dwg using a permanent fine point marker, then Stock

Location: *ST*

Handwritten: MF 08-08-07

18.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Handwritten: S 08/08/08

Job Completion



Handwritten: MF 08-08-07



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

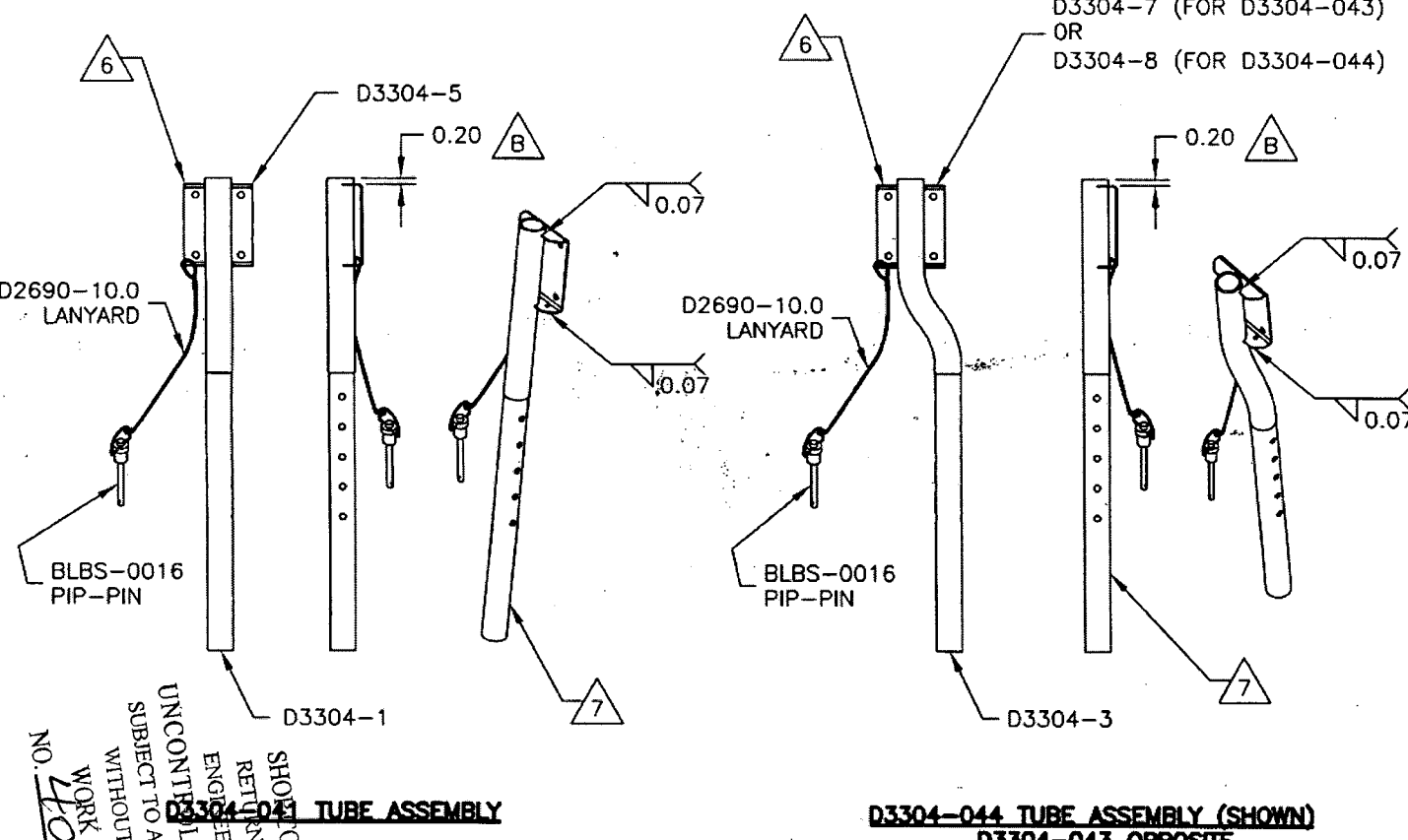
Part No: D3304-3 PAR #: N/A Fault Category: Prod / FAB ASS ^{med formal} NCR: Yes No DQA: 12 Date: 08/09/08
 QA: N/C Closed: 12 Date: 08/09/08

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
8/8/07	50	During final inspection handards put pulled apart with little ease. R.C. CBL-460 Loop stake ^{was} was		Scrap and destroy ⁱⁿ and replace Qty CBL-460 Bk <u>M107234</u> Qty CBL-1240 Bk <u>M107234</u>	SAD 08/08/07			
		not crimped ^{crimped} enough.		AND re crimp correctly SEE NCR40188 same as.				

NOTE: Date & initial all entries

DART

DESIGN	RF	DRAWN BY	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED		APPROVED		DRAWING NO.	D3304
DATE	05.07.15			TITLE	TUBE ASSEMBLY
				REV. B	SHEET 1 OF 4
				SCALE	1:6



D3304-041/-043/-044 NOTES:

- 1) FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 2) WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) IDENTIFY AS INDICATED USING FINE POINT PERMANENT INK MARKER "TCCA-PDA, DART AEROSPACE LTD, P/N D3304-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"
- 7) IF BEING ASSEMBLED WITH D3303-041, ADD THE FOLLOWING USING A FINE POINT PERMANENT INK MARKER: "TCCA-PDA, DART AEROSPACE LTD, P/N D412-724-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"

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WORK ORDER
NO. 40183

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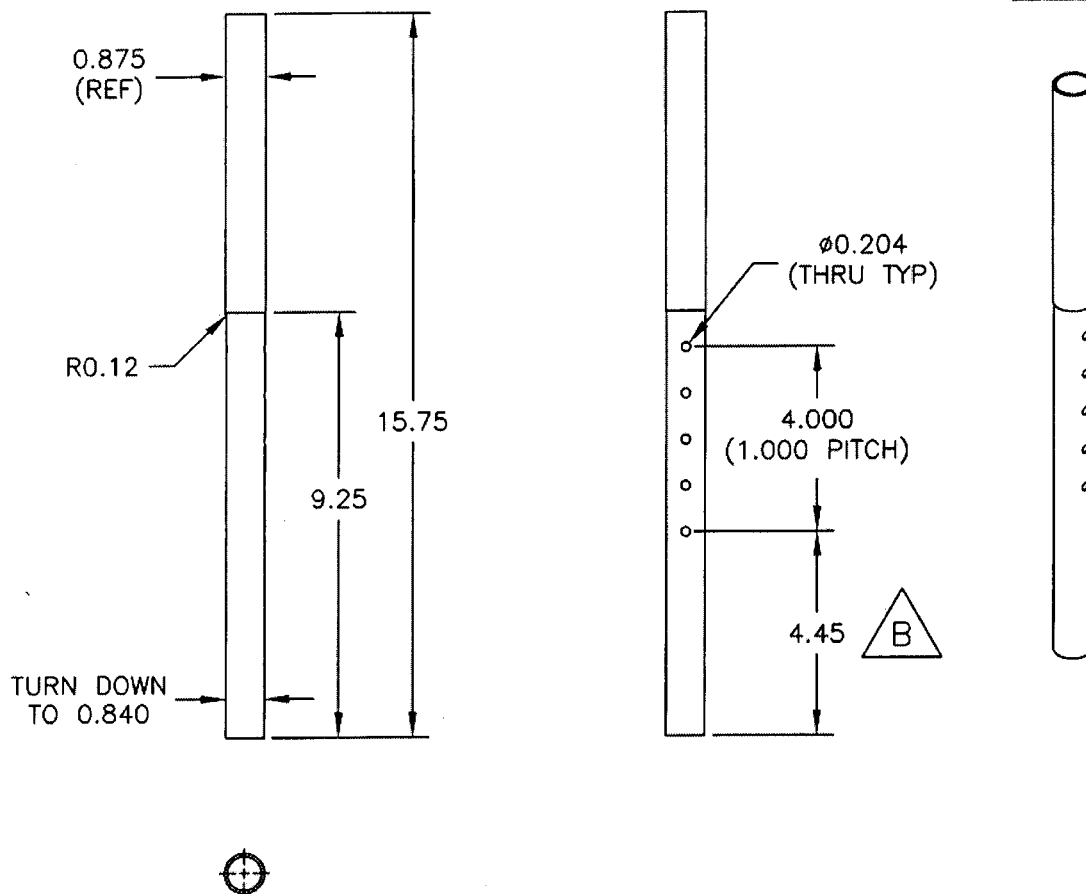
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DATE 05-08-11 BY [signature]



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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3304	REV. 8 SHEET 2 OF 4
DATE 05.07.15		TITLE TUBE ASSEMBLY	SCALE 1:4

RELEASED
05-08-11 *[Signature]*



D3304-1 TUBE

D3304-1 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE $\phi 0.875 \times 0.065$ WALL
(REF. DART SPEC M304TRO.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

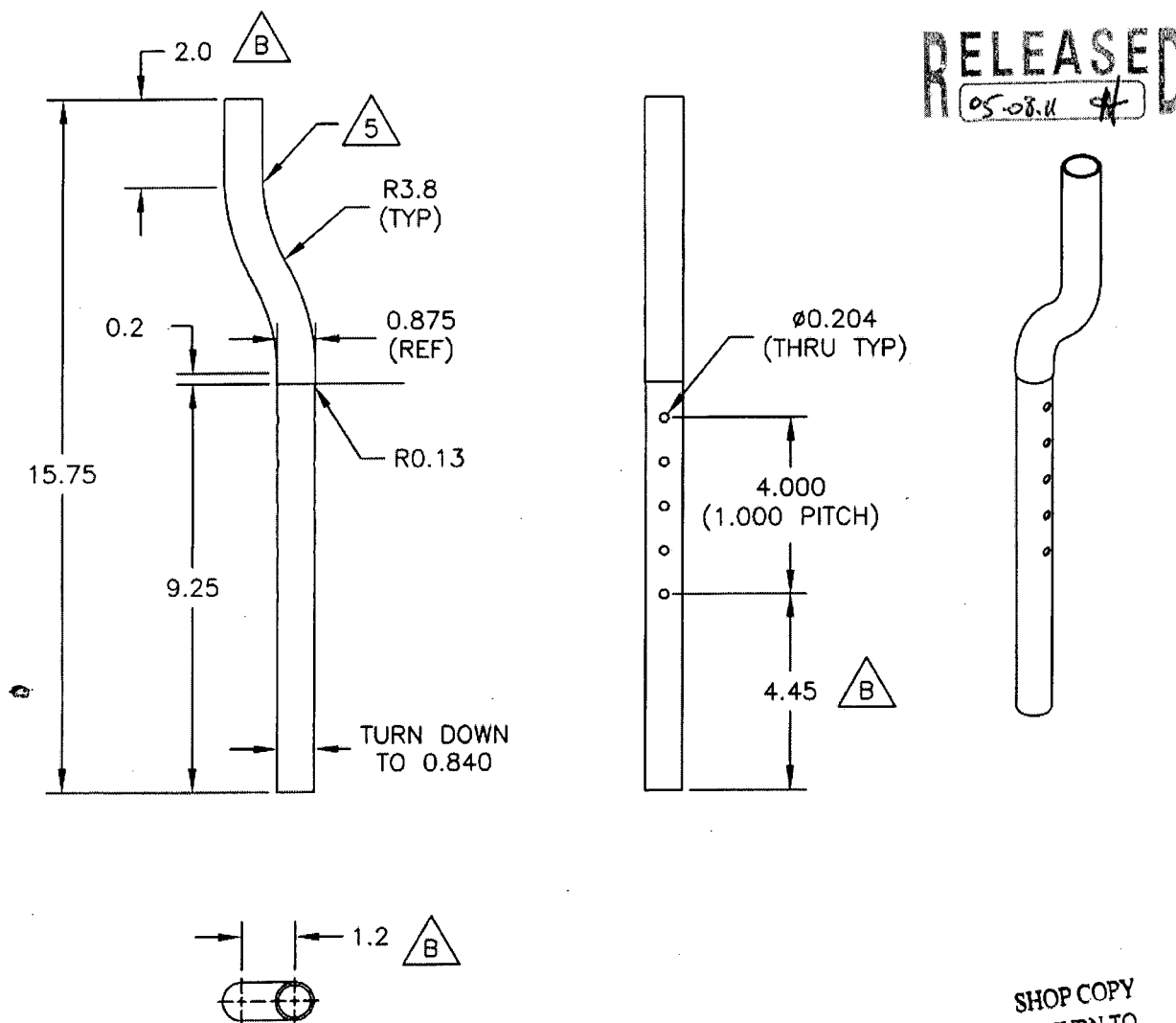
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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3304	REV. B SHEET 3 OF 4
DATE 05.07.15		TITLE TUBE ASSEMBLY	SCALE 1:4



D3304-3 TUBE

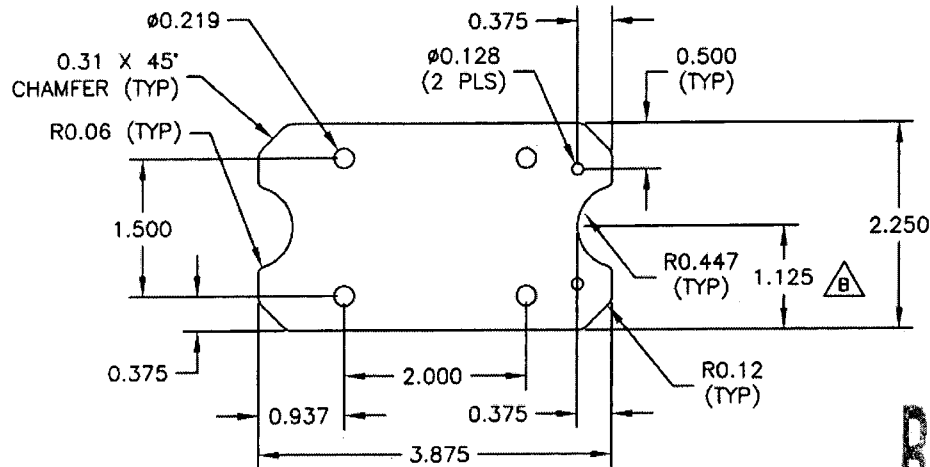
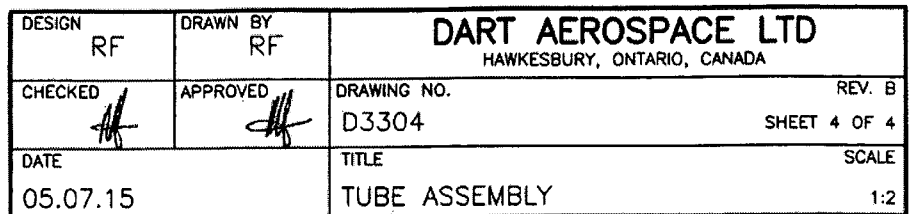
D3304-3 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE $\phi 0.875 \times 0.065$ WALL
(REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) BEND LINES 9.625, 13.375 DIMENSIONS

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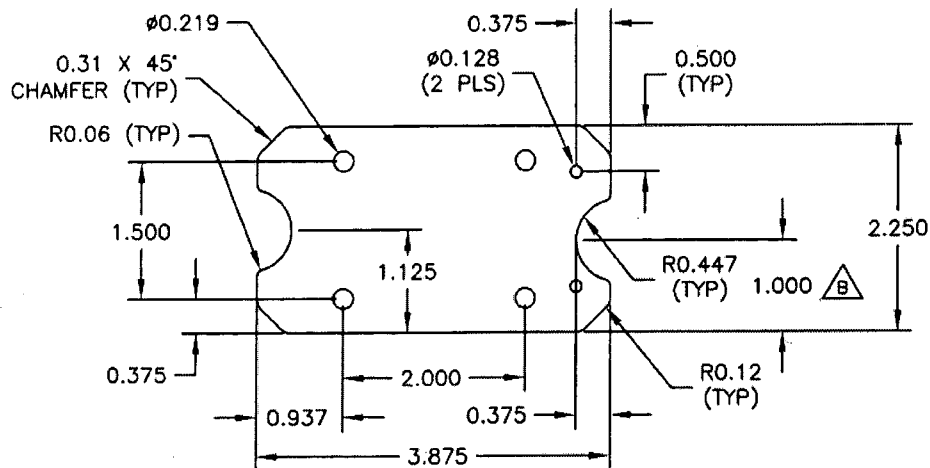
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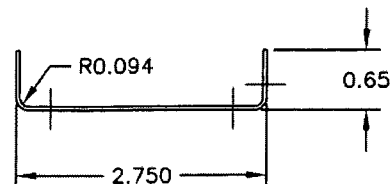


D3304-5 FLAT PATTERN

RELEASED
05-08-11



D3304-7/-8 FLAT PATTERN



D3304-5/-7 BRACKET
D3304-8 OPPOSITE

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NO. 40187

NOTES:

- NOTES:
- 1) MATERIAL: AISI 304/316 SS 0.040 THICK SHEET (REF. DART SPEC M304S20GA)
 - 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 3) ALL DIMENSIONS ARE IN INCHES
 - 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

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